sumably in Annapolis Co.; the common plant generally throughout the province being var. PINNATIFIDA Lecoq. & Lamotte.

*Artemisia Pontica L. Waste ground, Dartmouth.

Petasites palmatus (Ait.) Gray. Very rare in the western counties. Seen by us only at one station in Yarmouth Co.: sphagnous thicket, Belleville.

Senecio aureus L. Very rare in the western counties; seen by us only at one station in Yarmouth Co.: sphangous thicket, Belleville.

Lactuca Hirsuta Muhl. Widely dispersed but nowhere abundant in Yarmouth and Shelburne Cos.

Prenanthes nana (Bigel.) Torr. Yarmouth Co.: tur'y crests and slopes of exposed headlands, Markland (Cape Forchu).

HIERACIUM PANICULATUM L. Occasional from Yarmouth Co.

eastward at least to Annapolis and Lunenburg Cos.

**H. paniculatum \times scabrum. A large colony exactly combining the characters of H. paniculatum and H. scabrum and more abundant than either of them, in dry pine and oak woods on steep slopes along Lahave River, Bridgewater, Lunenburg Co.

MUSCARI COMOSUM IN OREGON.

J. C. Nelson.

By a rather startling coincidence, the discovery of Muscari comosum (L.) Mill. in the East, as reported by Mr. Long in Rhodora 24: 17 ff. (1922), was simultaneous with its first appearance on the other side of the continent. Here also it was first brought to notice by a school pupil. The first specimens were brought to the botany class of the Salem High School in the first week of May, 1921, by Carter Keene, a farmer's son living about sixteen miles north of Salem. A hasty consultation of that invaluable manual, Gray's Field, Forest and Garden Botany led us to name it tentatively Muscari comosum—a determination afterwards kindly confirmed by Mr. Long, who was about the same time studying the material collected by him at Philadelphia. The "find" was so unexpected that a personal visit to confirm the details seemed in order, and I accordingly accompanied young Keene to his home one Friday afternoon after school. The station in which the plant was growing was about 2½ miles north of Waconda, Marion County, in the northwest corner of a field of some 90 acres belonging to the elder Keene. This field had been sown to oats the previous season; in the fall the stubble had been plowed under and the ground left fallow for the following year.

About forty plants were counted, scattered among the furrows over an area of perhaps one hundred yards square. The farm-house was about 300 yards south, on the opposite side of the highway. No other dwelling appeared in the immediate vicinity, though a house had once stood on the same side of the road, about a hundred yards beyond the Keene homestead, the site being marked by an old cellar and a solitary specimen of Salix babylonica. Along the roadside near this tree was another interesting plant that sometimes appears mysteriously in western Oregon—Reseda alba L. None of the Keene family could offer any explanation for the presence of the Muscari, as they had moved to the farm only a year before. It had of course attracted their attention, and the father persisted in calling it "death camas," although the resemblance to Zygadenus venenosus was by no means marked.

Although the plant appeared fairly well established, there seemed reason to fear that its location in a cultivated field might make its tenure decidedly precarious. It was therefore without any strong expectation of finding it again that I made a second visit to the spot on May 27 of the present year (1922). The field had been again sown to oats, which were already breast-high; but scattered everywhere among the grain over the original area were the brilliant violet-tipped clusters of the Muscari. No other weed except the omnipresent grain-field pest of the Northwest, Centaurea Cyanus, seemed as well established. An attempt to dig out some specimens showed that the plant had been clever enough to send its bulbs down far enough to escape the plow, and that the problem of survival had therefore been met and solved. The bulbs that had not been more than six inches below the surface at the time of the first visit, had gone down to at least 30 inches in the cultivated ground. We found that the Keene family had transplanted some of the bulbs, and we brought home a few others for our own gardens.

It is even more difficult to explain the plant here than at the Philadelphia station. Almost anything may be expected to appear in the miscellaneous refuse that collects about a large city; but how such a plant found its way into a remote rural neighborhood is hard to understand. If the seeds were introduced in seed-oats, why has it not appeared elsewhere? It has never been reported in cultivation in this part of Oregon—even M. botryoides is much less common here than in the East, and has never been found growing spontaneously.

The Oregon specimens agree perfectly with the excellent description given by Mr. Long. It is interesting to note that Linnaeus originally placed this and the other species of *Muscari* in *Hyacinthus*; and it remained for Philip Miller to point out that the shape of the corolla in this group showed so marked a deviation from the funnel- or bell-shaped corolla of *Hyacinthus* proper as to justify a generic segregation.

Boissier in the Flora Orientalis 5: 291 (1884), gives the native range of M. comosum as from Greece and Thrace to Transcaucasia, Asia Minor, Cyprus and Mesopotamia, westward over all of central and southern Europe to Belgium, and into northern Africa. All these Mediterranean weeds seem to find the climate and soil of Oregon peculiarly congenial, and each season marks the appearance of immigrants previously unknown.

SALEM, OREGON.

THE AMERICAN VARIATIONS OF LINNAEA BOREALIS.

M. L. FERNALD.

For many years the Twinflower of northeastern America passed unquestioned as identical with the European Linnaea borealis L., and after it was separated in 1825 as L. americana Forbes, it was not generally treated as even varietally distinguishable from the European until it was revived as a species by Britton¹ in 1901 and as var. americana (Forbes) Rehder, Rhodora, vi. 56 (1904). In all recent treatments which I have examined it seems to be implied that the typical L. borealis does not occur in America and that our plants all belong to the broadly distributed var. americana and the more restricted var. longiflora Torr. of the Pacific slope, or to a reputed Alaskan species, L. serpyllifolia Rydberg, Journ. N. Y. Bot. Gard. viii. 135 (1907). Much of the material from western Alaska and the Aleutian Islands, however, the plant called by Rydberg L. serpyllifolia, is quite like typical European L. borealis. The western var. longiflora, similarly, does not seem to be clearly interpreted. Sometimes, as by Rydberg,2 it has been treated as a species; sometimes, as by Piper,3 it has been united without attempt at differentiation with the widely dispersed

¹ Britton, Man. 873 (1901).

² Rydb. Fl. Rocky Mts. 812 (1917).

³ Piper, Fl. Wash. 528 (1906).